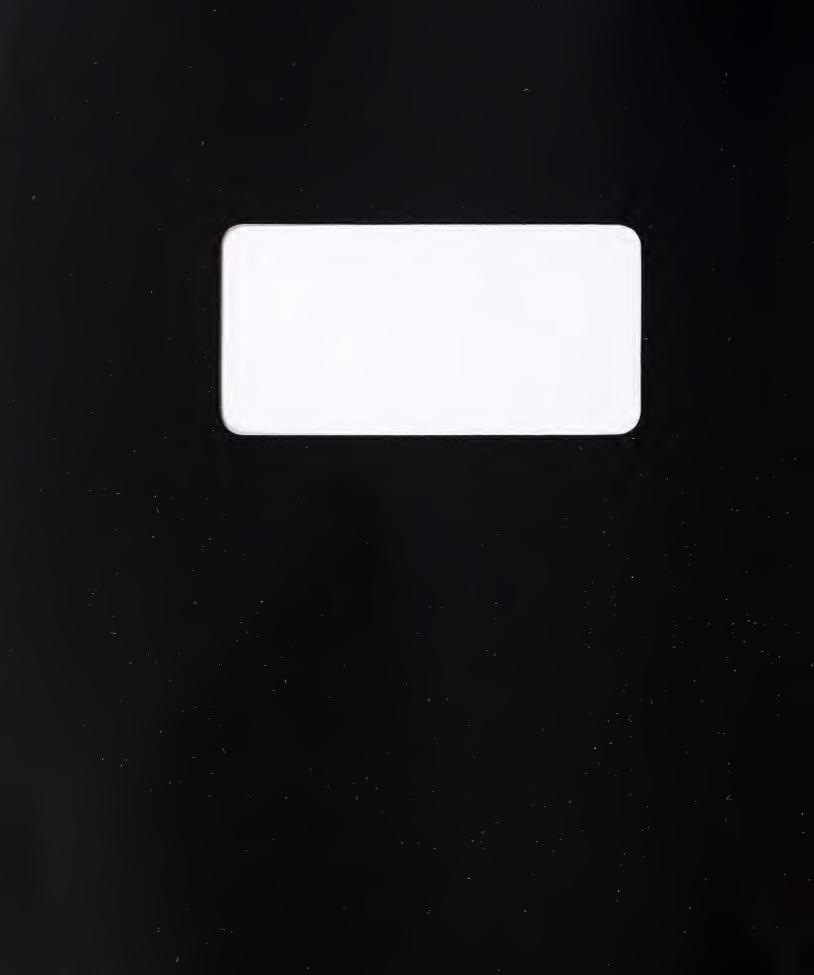
Presentatation To: Computer Marketing Analysis Group





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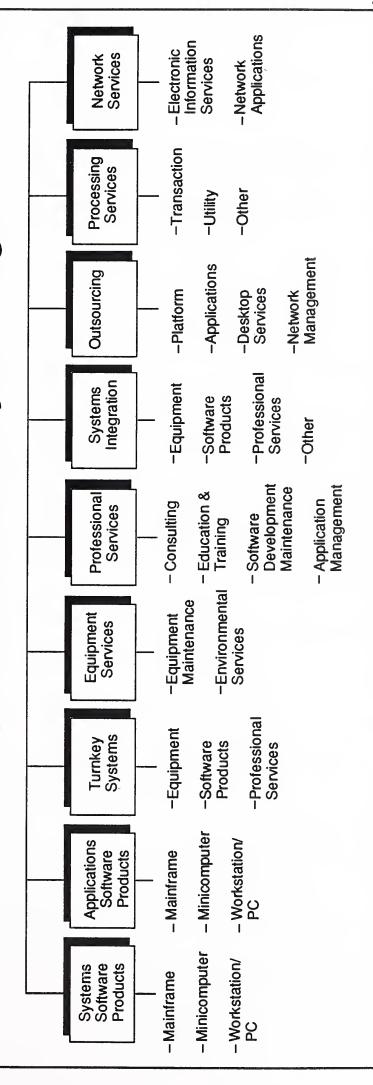
Market Analysis Program Research Methodology



INPUT Mission

To provide objective data and insightful analysis on information services markets, companies, and products to enhance the competitive positions and increase the profits of our clients.

Comprehensive Industry Coverage



15 Vertical Markets, 7 Cross-Industry Markets



Information Services Market Analysis Program

Verticals

Banking/Finance

Discrete Manufacturing

Process Manufacturing

Retail Distribution

Wholesale Distribution

Education

Health Services

Insurance

Utilities

Federal Government

State/Local Government

Transportation

Telecommunications

Business Services

Miscellaneous Industries



Information Services Market Analysis Program

Delivery Modes

Processing Services

Turnkey Systems

Systems Software

Products

Network Services

Applications Software Products

Professional Services

Systems Integration

Systems Operations

Network Services

Equipment Services

Cross-Industry Markets

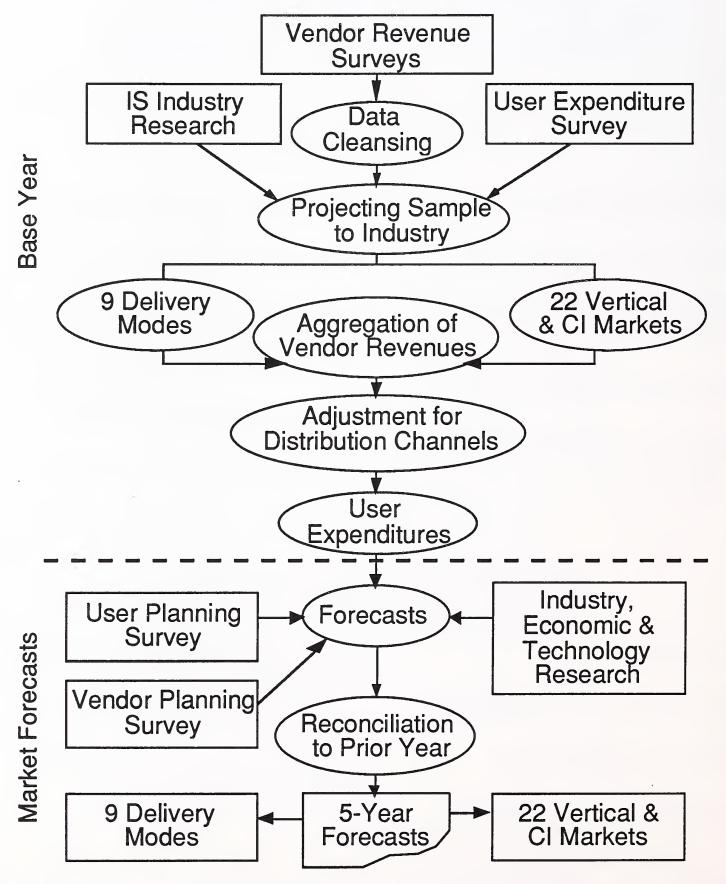
Accounting
Planning & Analysis
Office Systems
Human Resources

Engineering & Scientific

Education & Training Sales & Marketing



INPUT Primary Market Research Methodology





Forecast Methodology

- 2,000 User Surveys (U.S.)
 - Telephone interview
 - Vertical industry
 - Size of firm
 - Functional management

Sample Segmentation

- Survey Areas
 - New applications/technologies
 - Vendor preferences
 - Client/server
 - Outsourcing
 - Platforms
 - Budget levels and changes
 - Major issues



Forecast Methodology

- Vendor Revenue Surveys
 - Telephone Surveys
 - 400 Leading Vendors (U.S.)
 - Delivery mode leaders
 - · Vertical market leaders
 - · 60% of industry total dollars
 - 800 data points
 - Survey Areas
 - · Total revenues, U.S. and international
 - · Revenue growth by: Delivery mode, Vertical market, Client/server architecture
 - · Acquisitions/divestitures
 - · Price increases
 - · IS employees
 - · Key issues



Forecast Methodology

- Data Cleansing Vendor Surveys
 - Calendarizing
 - U.S. revenues versus international
 - Acquisitions: growth rate adjustments
- Projecting Sample to Industry
 - Large vendors: actual and estimated revenues
 - Small vendors: average revenue/firm, times number of firms = small vendor's segment
 - Sum of large and small vendor segments = first cut



Vendor Revenue to User Expenditure Conversion

Delivery Mode	Vendor Revenue Multiplier				
Applications Software Products	1.18				
Systems Software Products	1.10				
Systems Operations	0.95				
Systems Integration	0.95				
Professional Services	0.99				
Network Services	0.99				
Processing Services	0.99				
Turnkey Systems	0.95				
Equipment Services	0.99				



Concentrated Information Services Markets

Services	Industries		
Systems Integration	Telecommunications		
• Systems Operations	 Process Manufacturing 		
Systems Software	• Utilities		
Processing Services	• Insurance		
	• Federal		
	Banking and Finance		



Fragmented Information Services Markets

Services	Industries		
 Professional Services 	Discrete Manufacturing		
 Applications Software 	Distribution		
•	• Health		
	State and Local Government		



Forecast Methodology Vendor Planning Survey

- Leading and Emerging Vendors in Each Segment
 - Key issues
 - Technology trends
 - Growth promoters/inhibitors
 - Growth rate expectations
 - Product/market strategies
 - Key competitors/market shares



INPUT Market Research Conventions

- Use real dollars, real GDP
 - Blue Chip Report (updated semiannually)
 - Inflation/deflation removed
- Round financial estimates
- Identify respondent/population attributes (e.g., Is conclusion based upon percent of population or percent of responses?)



INPUT Market Research Common Sources of Forecast Variations

- Difference in market definition (SIC)
- Double counting where markets overlap
- Vendor market overstatement (revenues)
- User market understatement (expenditures)
 - Non-IS dollars omitted
 - Budgetary caution



Market Research Truisms

- Always a knowledgeable estimate
- Primary forecast attributes
 - Relative opportunity
 - Relative magnitude
 - Driving/inhibiting forces
 - Reconciliation (with last forecast)
 - Continuity (INPUT's 18 years)



INPUT Market Research Sample Sizes

	Interviews			
Consideration	Users	Vendors		
Population typically controlling 80% exp./rev.	500-1,000	20-100		
Target interviews	100	50		
Minimum interviews	50	30		



INPUT Market Research Confidence Level

- INPUT seeks to attain 95% confidence level
- Use targeted interviews based upon:
 - Industry
 - Topic
 - Geography
 - Installed equipment
 - Company revenues
 - Management title



Wholesale Distribution Sector Market Size by Delivery Mode 1991-1997

Delivery Modes	Growth 91-92 (%)	1992 (\$M)	1997 (\$M)	CAGR 92-97 (%)
Sector Total	11	2,532	4,573	13
Processing Services - Transaction Processing	3	307 307	418 418	6 6
Turnkey Systems	7	522	731	7
Applications Software - Mainframe - Minicomputer - Workstation/PC Systems Operations	11 4 12 22 19	587 255 137 195 229	1,083 317 226 540 502	13 4 11 23 17
Systems Integration	- 16	181	384	16
Professional Services	8	380	542	7
Network Services - Electronic Info. Svcs Network Applications	22 10 21	326 69 257	13 127 786	23 13 25

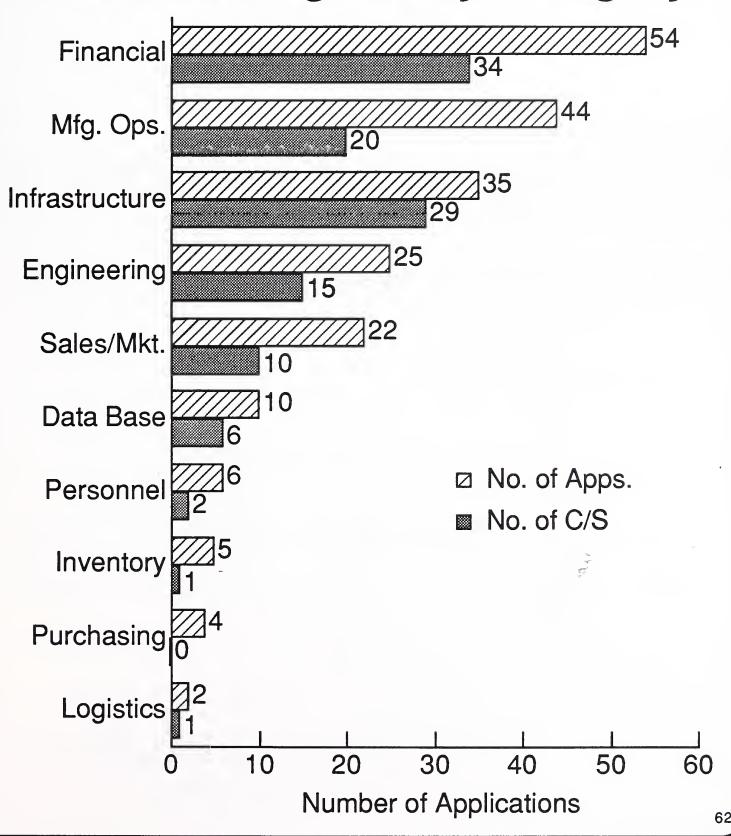


Wholesale Distribution Sector 1992 MAP Data Base Reconciliation

	1996 Market			91-96 CAGR	91-96 CAGR	
Delivery Modes	1991 Report (Fcst)	1992 Report (Fcst)	Variance from 1991Report		per data 91 Rpt	per data 92 Rpt
	(\$M)	(\$M)	(\$M)	(%)	(%)	(%)
Total Wholesale DistributionSector	3,847	4,032	185	5	12	12
Processing Services -Transaction Processing	452 452	391 391	-61 -61	-13 -13	8 8	6
Turnkey Systems	683	683	0	0	7	7
Applications Software	958	958	0	0	13	13
Systems Operations	181	423	242	134	18	17
Systems Integration	331	331	0	0	16	16
Professional Services	465	565	40	9	6	8
Network Services	777	741	-36	-5	23	23

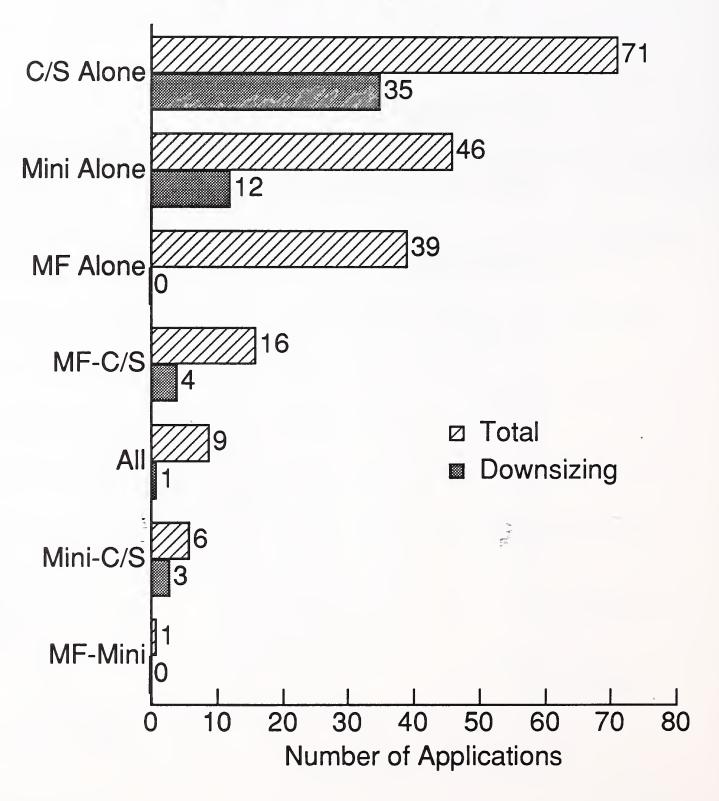


Discrete Manufacturing Total Number of Applications and Number Using C/S by Category





Discrete Manufacturing Downsizing Platform Combinations





Planned Move Toward Total Information Technology Forecasting

- Worldwide scope
- 30 countries
- Global vertical markets

New Categories

- Equipment and platform
- Staffing
- Data communications

Goal: Complete IT forecast for all key dimensions

- Country
- Industry market
- Service/product categories



About INPUT

- INPUT has defined the information services market since 1974
- Consistent forecast structure and methodology
- Analysis and opinions based on primary market research
- Executives with industry experience
- Extensive international presence
- Service portfolio to meet specific client needs



Some Key Clients

ADP

Andersen Consulting

AT&T

Bell Atlantic

BellSouth

British Telecom

CAP Gemini

Computer Sciences

Digital Equipment

EDS

Ernst & Young

GTE

GEIS

Hewlett-Packard

ICL

IBM

Litton

McKinsey & Co.

NCR

NYNEX

Systematics

Texas

Instruments

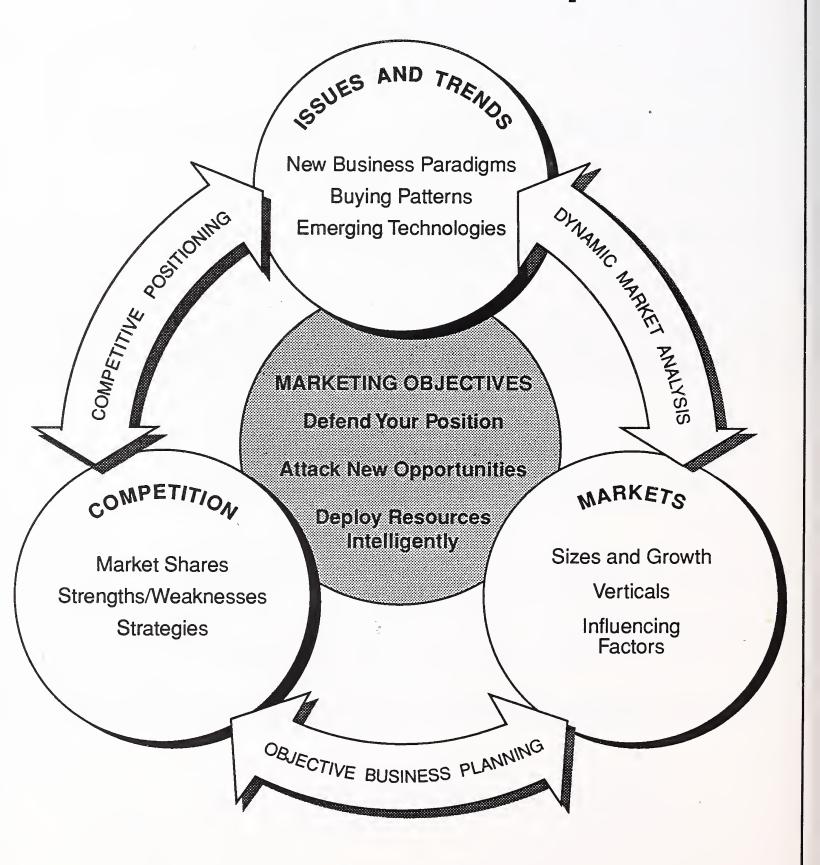
TSC

Unisys

Over 400 Clients Worldwide



The INPUT Client Perspective





Annual Subscription Programs

Packaged Reports

- Market forecasts (5 year)
- Strategic issue reports
- Competitive analysis
- Research bulletins

"Hotline" to Analysts

- Specific questions
- Industry expertise

Annual Executive Conference

- Strategic planning focus
- Network with industry executives
- On-site Briefing



U.S. & European Program Offerings

INPUT Program Offerings	U.S.	Europe
Information Services Market Analysis	*	*
Worldwide Market Analysis	*	
Canadian Market Analysis	*	
Systems Integration	*	*
Outsourcing Information Systems	*	*
EDI/Electronic Commerce	*	
Customer Services	·	*
Information Services Vendor Analysis	*	
Client/Server Markets & Applications	*	
Federal Procurement and Trends	*	

PETER A. CUNNINGHAM PRESIDENT

PROFILE

- Mr. Cunningham has 28 years of experience in the information technology industry, including over 20 years of P&L responsibility in consulting.
- Mr. Cunningham provides information and advice to users and vendors of information technology. He specializes in analysis and forecasting of major trends in the industry, particularly in software, services, and the impact of information technology on people and organizations.
- In 1974, Mr. Cunningham founded INPUT to provide planning services, market research and consulting to buyers and vendors of IT products and services on a worldwide basis. The company specializes in analyzing and forecasting the applications and use of IT, particularly through the information services industry. This industry is now over \$250 billion per year in size and is being driven by trends in outsourcing, systems integration, and downsizing. INPUT's mission is to provide its clients the ability to benefit from these and other IT trends and opportunities.
- Previously, he was a founder and President of J.W. Goodhew and Associates, Inc., a Washington,
 D.C. data processing consulting company specializing in the Medicaid, association, and
 manufacturing industries, as well as the federal government. Prior to that, Mr. Cunningham was
 with Management Science America, responsible for data processing projects in government and
 industry.
- Mr. Cunningham came to the United States with C-E-I-R, for whom he performed systems development and management.
- Mr. Cunningham started his career with ICL in 1964 in systems software development.

EDUCATION

- B.Sc. (Physics), Associate of the Royal College of Science, Imperial College, London
- M.P.A. (Technology of Management), The American University, Washington, D.C.

MEMBERSHIPS

- Fellow of the British Computer Society
- Member of the Worshipful Company of Information Technologists (Guild of the City of London)

ROBERT L. GOODWIN MANAGER, INFORMATION SERVICES MARKET ANALYSIS PROGRAM

PROFILE

CAPABILITIES

- Twenty-five years of successful sales, marketing, and general management in the computer equipment, remote processing services, and software industries.
- Expertise in business plan development, strategic partnering and acquisitions, industry marketing, VAR and reseller operations.

BACKGROUND

- Robert (Bob) Goodwin brings to INPUT and its clients comprehensive experience in executive management in large and mid-size corporations.
- Most recently, Senior Vice President–Marketing, Hotel Information Systems, leading vendor of global information systems to the hospitality industry.
- He has served as President of Command Data Systems, a public safety software and turnkey systems vendor. With Bob's leadership and marketing strategy, CDS became a highly visible and respected vertical market leader.
- Bob's qualifications include the role of Director of Marketing for Xerox Computer Services, in support of all field sales and customer services activities.
- At IBM, Bob served as Branch Manager and Assistant District Manager.
- Chairman, Electronic Forms Transfer Committee, ITAA

EDUCATION

- B.A., Psychology, Occidental College.
- Attended the MBA program, Golden Gate University.

THOMAS J. O'FLAHERTY VICE PRESIDENT

PROFILE

CAPABILITIES

- Design and manage research projects for determining market needs, competitive positioning, and the viability of products and services.
- Provide consulting advice on market strategy, new products and services, growth/diversification alternatives. Two systems initiatives added \$13 million and \$21 million to the bottom line.
- Experience includes over 100 research and consulting assignments for clients ranging from startups to firms such as ADP, Ameritech, AT&T, Citicorp, Continental Insurance, Coopers & Lybrand, General Motors, GTE, IBM, ITT, Marriott Corporation, McKinsey & Co., Metaphor, Mobil, and Unisys.

BACKGROUND

- Director of Research, Broadview Associates. Responsible for professional support functions (company analysis, client consulting, proprietary data base development) for an international investment banking firm specializing in information technology.
- Principal, Information Service Strategies. Consultant on markets and products. Marketing director for start-up firm offering innovative PC communications product.
- Principal Consultant, INPUT. Directed research and consulting projects for a variety of clients.
- Hands-on experience at every IS department level, including IS Director.

EDUCATION/PROFESSIONAL ACTIVITIES

- B.A., Colgate University
- Certificate in Data Processing (CDP)
- Member of the ACM, the Society for Information Management, and a founding member of the American Association for Medical Systems and Informatics. Extensive speaking to professional groups.
- Regular contributor to Computerworld Softline column since 1983.

JEAN-PAUL RICHARD VICE PRESIDENT

PROFILE

CAPABILITIES

- Mr. Richard has 23 years of experience in the data processing industry. He has served as a systems analyst and has held management positions in marketing, field and headquarters sales, as well as strategic planning.
- Mr. Richard directs the Outsourcing Information Systems Program and has administrative responsibility for INPUT's Vienna office.

BACKGROUND

- Prior to joining INPUT, Mr. Richard served as a program manager at Boeing Computer Services, emphasizing acquisition of federal government business. At General Electric Information Services, he held positions as manager of sales planning and sales administration. He also managed commercial sales and marketing offices in Canada and France for General Electric Information Services.
- Mr. Richard began his data processing career as a systems analyst. He moved to a client services environment dealing with a range of firms from insurance companies to chemical manufacturers.

EDUCATION

- B.S., Chemistry, Northeastern University, Boston, Massachusetts
- M.S., Industrial Management, Sloan School, MIT, Cambridge, Massachusetts

ROBERT W. DELLER FEDERAL PROGRAM MANAGER

PROFILE

CAPABILITIES

- Dr. Deller has over 25 years of experience in the information technology industry as a federal government official, U.S. government information technology market analyst and consultant, and international consultant.
- Dr. Deller is responsible for INPUT's federal program of information technology market research, custom studies, and consulting services.

BACKGROUND

- Prior to joining INPUT, Dr. Deller was Director of Market Research at Selbre Associates, Inc., with responsibility for research market data base development, custom consulting, and preparation of federal government agency profiles.
- Previously, he consulted independently to several market research firms developing market analysis reports and federal agency profiles.
- Earlier he served as Vice President of Research for Information Strategies Group where he directed information technology and market analysis services for federal government managers and information technology vendors.
- Before his market research positions, Dr. Deller was Deputy director for Information Systems at the U.S. Food and Drug Administration.

EDUCATION

- Ph.D. in Public Administration, The American University, Washington, D.C.
- M.P.A. (Management Information Systems), The American University, Washington, D.C.
- B.S. (Education), Towson University, Baltimore, Maryland

OTHER

- Dr. Deller holds a professional Certificate in Data Processing (C.D.P.).
- He is on the adjunct faculty at The American University's School of Public Affairs.
- He is a member of the Data Processing Management Association and the American Society for Public Administration.
- He is an international consultant to Aid for International Development.
- Dr. Deller Regularly contributes a column on federal procurement issues to *Government Computer News*.

ABOUT INPUT

Since 1974, information technology (IT) users and vendors throughout the world have relied on INPUT for data, objective analysis, and insightful opinions to support their plans, market assessments and technology directions particularly in computer software and services. Clients make informed decisions more quickly and save on the cost of internal research by using INPUT's services.

Call us today to learn how your company can use INPUT's knowledge and experience to grow and profit in the revolutionary IT world of the 1990s.

ANNUAL SUBSCRIPTION PROGRAMS -

NORTH AMERICAN AND EUROPEAN MARKET ANALYSIS

Analysis of Information Services, Software, and Systems Maintenance Markets 5-year Forecasts, Competitive and Trend Analysis

- 15 Vertical Markets
- 9 Categories of Software and Services
- 7 Cross-Industry Markets
- The Worldwide Market (30 countries)

·U.S. Focused

———European Focused -

- Outsourcing
- Client/Server
- Systems Integration
- EDI/Electronic Commerce
- IT Vendor Analysis
- U.S. Federal Government IT Procurements

- Outsourcing
- Systems Integration
- Customer Services

CUSTOM CONSULTING

Many vendors leverage INPUT's proprietary data and industry knowledge by contracting for custom consulting projects to address questions about their specific market strategies, new product/service ideas, customer satisfaction levels, competitive positions and merger/acquisition options.

INPUT advises users on a variety of IT planning and implementation issues. Clients retain INPUT to assess the effectiveness of outsourcing their IT operations, assist in the vendor selection process and in contract negotiation/implementation. INPUT has also evaluated users' plans for systems and applications downsizing.

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